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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/018,188	12/18/2001	Naoyuki Koyama	511.40998X00	7930

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EXAMINER

ELEY, TIMOTHY V

ART UNIT	PAPER NUMBER
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3724

DATE MAILED: 03/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/018,188

Applicant(s)

KOYAMA ET AL.

Examiner

Timothy V. Eley

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) 10,11,18,19,23 and 24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9,12-17,20-22,25 and 26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2/9/06</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Election/Restrictions

1. Newly submitted claim 23 and 24 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:

- New claims 23 and 24 are drawn to a species of invention not previously claimed. The previously recited species includes the composition now excluded from the recited species of claims 23 and 24. Therefore, the previously recited species is separately patentable and distinct from the species of invention now being recited in newly submitted claims 23 and 24, and thus would require a search in addition to that previously performed.
- Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 23 and 24 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Specification

2. The amendment filed December 15, 2005 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not

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supported by the original disclosure is as follows: The subject matter of newly submitted claims 23-26. Applicant did not previously disclose that the CMP abrasive and additive did not have the properties now recited in claims 23-26.

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 25 and 26 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

- It is not readily apparent as to exactly how the CMP abrasive and additive may not be used to polish a metal film.
- It should be noted that had claims 23 and 24 not been restricted by original presentation, that they would have been rejected

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under 35 U.S.C. 112, first paragraph, since it is not readily apparent as to how the said composition is excluded.

Claim Rejections - 35 USC § 102

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 1-3,7,8,12,15-17, and 20-22 are rejected under 35 U.S.C. 102(e) as being anticipated by Sachan et al(2003/0181046), as applied in the rejection filed June 15, 2005, and newly presented claims 25 and 26 are rejected under 35 U.S.C. 102(e) as being anticipated by Sachan et al(2003/0181046), as stated below.

- Regarding claims 1 and 12, applicant's recitation of "consisting essentially", as now recited in amended claims 1 and 12, is seen to be met by Sachan et al, since "essentially" is defined as: **2** : of the utmost importance(Merriam-Webster Online Dictionary), and since applicant has not specifically recited that the CMP abrasive consists of **only** the recited components. Thus the components disclosed by Sachan et al are "essential".
- Regarding claims 25 and 26, Sachan et al disclose a CMP abrasive and additive as previously indicated above. Applicant's recitation of "provided that a metal film is excluded from the film to be polished" is intended use. It should be noted that a recitation with respect to the manner in which a claimed product is intended to be employed does not differentiate the claimed

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product from a prior art product satisfying the claimed limitations.

Claim Rejections - 35 USC § 103

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

8. Claims 4-6,9,13, and 14 are rejected under 35.U.S.C. 103(a) as being unpatentable over Sachan et al, as applied in the rejection filed June 15, 2005.

Response to Arguments

9. Applicant's arguments filed December 15, 2005 have been fully considered but they are not persuasive.

- Applicant argues that Sachan et al would have neither taught nor would have suggested such a CMP abrasive as in the present claims, "consisting essentially of" the specified components recited in claim 1.
 - o However, applicant's recitation of "consisting essentially is seen to be met by Sachan et al, since "essentially" is defined as: 2 : of the utmost importance(Merriam-Webster Online Dictionary), and since applicant has not specifically recited that the CMP abrasive consists of **only** the recited components. Thus the components disclosed by Sachan et al are "essential". Furthermore, even if applicant were to recite that only specified components were contained in the CMP abrasive, it would have been

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obvious to one having ordinary skill in the art at the time the invention was made to add or remove certain well known components to or from the CMP abrasive of Sachan et al in order to polish specific workpieces and to provide specific polishing results. Furthermore, the additional components in the CMP abrasive of Sachan et al do not appear to chemically react with any of the other components and therefore may be removed without chemically affecting the CMP abrasive.

- Applicant argues that Sachan, et al is primarily concerned with polishing a metal layer while attenuating removal of the oxide film, and includes an oxidant to oxidize the metal, as well as a metal complexing agent, while in the present invention an oxide film may be polished.
 - o However, as previously stated, the additional components(oxidant and metal complexing agent) in the CMP abrasive of Sachan et al do not appear to chemically react with any of the other components and therefore may be removed without chemically affecting the CMP abrasive. Also, applicant is reciting an intended use of the CMP abrasive which may be performed by the CMP abrasive of Sachan et al. That is to say, the CMP abrasive of Sachan et al may be used to polish an oxide film, especially if a metal layer is not present.

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- Applicant argues that Sachan et al discloses that the composition therein attenuates removal of the oxide film and that this reference would have taught away from polishing of the films as recited in claims 16,17,20, and 21.
 - o However, in the absent of a method layer the composition of Sachan et al may be used to polish an oxide film since cerium oxide particles are present which will most definitely provide some form of polishing effect on an oxide film and any of the films recited in claims 16,17,20, and 21.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

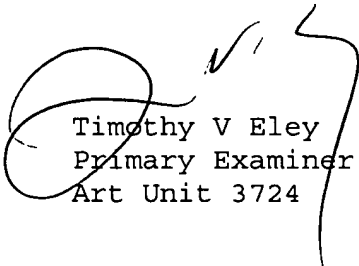
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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy V. Eley whose telephone number is 571-272-4506. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Allan N. Shoap can be reached on 571-272-4514. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Timothy V Eley
Primary Examiner
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